



# Boilers

Safety and Health Conference 2016

# Who We Are

## Ron Sleeth

While on active duty from 1968 to 1972 with the US Navy, Ron attended boiler class A school in 1968 at the US Naval Station Great Lakes. He reached the rate of BT2 and worked on and fired the boilers on the USS Hanson DD 832 and USS Chicago CG 11.

After separation in 1972, he worked for the US Marine Corps at Barstow, California, as a Boiler Operator and Boilermaker for 28 years, then retired.

After retiring from the US Marine Corps Base, Ron worked in the power plant at KSU for 2.5 years, then the Department of Labor as an inspector from 2004 to 2013.

In 2013, the boiler inspectors were moved to the Office of the State Fire Marshal, where Ron is a current Deputy Office Boiler Inspector for the state of Kansas.



# Who We Are

## Michael Lutz

Worked as a boiler maintenance and operations mechanic for Kansas Public School systems, USD 409 Atchison Kansas, for 13 years as well as Lansing Correctional Facility for 17 years before becoming a deputy boiler inspector for the Office of the State Fire Marshal in 2013.

Michael earned his certificate in building trades from the Northeast Kansas Vocational Technical Schools and his Associates Degree from Kansas City Kansas Community College.

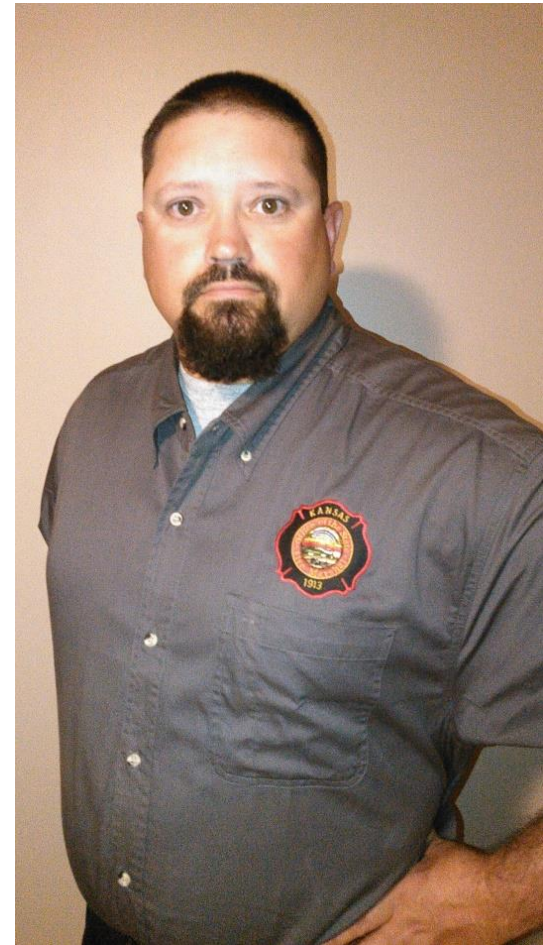


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## Robert Stimson

Retired from the Air Force after 17 years of service. Was Stationed in Ramstein AB, Germany; Hurlburt Field, FL; Minot AFB, ND; and retired out of McConnell AFB, KS. After the Air Force he worked for Sedgwick County Facility Maintenance before coming to work for the Office of the State Fire Marshal as a Deputy Boiler Inspector April of 2015.

Robert earned an associates degree in Mechanical and Electrical Technology from the Community College of the Air Force in 2009.



# Who We Are

## Jeremy Fudge

After Graduating High School Jeremy went to Missouri Welding Institute in 1999. After graduating Jeremy started working as a pipe fitter and welder for the oil refining and nuclear energy and power production facilities on the essential piping and critical systems through out the continental United States. Until he come to work at the Fire Marshal Office in January of 2016



# Who We Are

## David Witzke

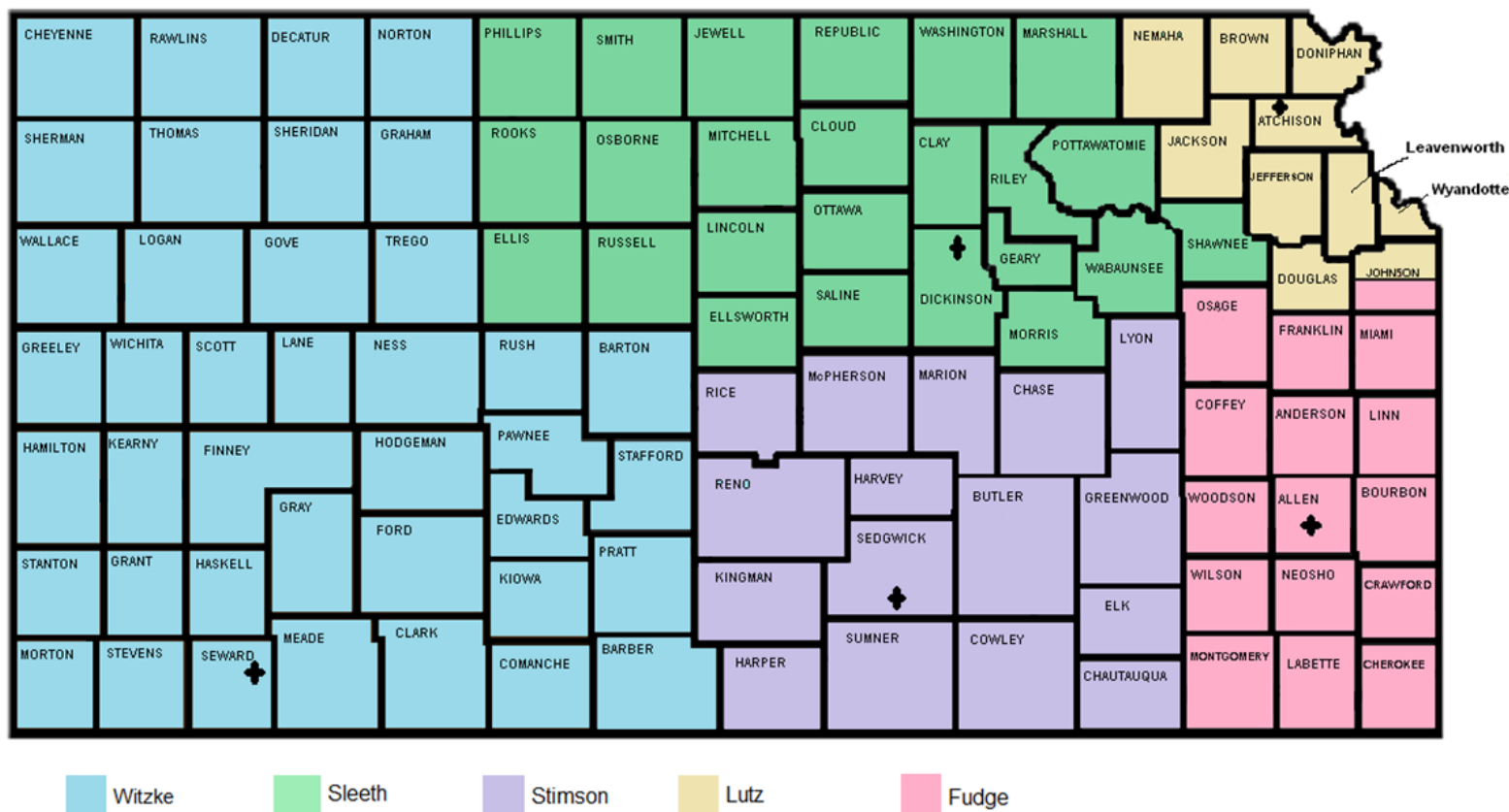
Worked for National Beef as a boiler maintenance and operations mechanic for 15 years in Liberal Kansas. He started with the Office of the State Fire Marshal in July of 2016.

David attended Garden City Ammonia Program, Boiler Operator 1 Course



# Where we operate

## Office of the State Fire Marshal - Boiler Inspector Territories



# What do we do?

The Office of the State Fire Marshal is dedicated to protecting the lives and property of the citizens of Kansas from the hazards of fire, explosion and hazardous materials. Our aim is to reduce the deaths, injuries, and property losses of Kansans through:

- Inspection
- Enforcement
- Regulation
- Investigation
- Hazardous material incident mitigation
- Public education

# Authority

Kansas Statute gives us  
authority under Kansas Fire  
Prevention Code  
and Boiler Statutes at

[www.firemarshal.ks.gov](http://www.firemarshal.ks.gov)

#### BOILER CONTACT INFORMATION

Boiler Safety Unit  
Office of the State Fire Marshal  
800 SW Jackson, Suite 104  
Topeka, KS 66612-1216  
785-296-3401  
[boiler.inspection@ksfm.ks.gov](mailto:boiler.inspection@ksfm.ks.gov)

#### FORMS

[Boiler Inspection Request](#)  
[Boiler Accident Report](#)  
[Boiler & Pressure Vessel Inspector Application](#)

#### LINKS AND RESOURCES

[Boiler Online Payment Portal](#)  
[Boiler FAQs](#)  
[Kansas Boiler Act](#)

[Home](#) / [Boilers](#)

## BOILER INSPECTIONS

Boilers and pressure vessels that fall under the Kansas Boiler Safety Act shall be constructed to a recognized code of construction and be registered with the National Board of Boiler and Pressure Vessel Inspectors. Visit [The National Board of Boiler and Pressure Vessel Inspectors](#) for more information.



All new boiler and pressure vessel installations, second hand, relocated, repaired, and those moved from other jurisdictions must be reported to this office for inspection scheduling, by the installer, owner or operator, prior to being placed in operation.

All welded repairs and alterations on boilers or pressure vessels shall be performed by a firm that holds a National Board "R" Stamp. Repair forms are filed in this office.

Responsibilities for the Boiler Inspection & Safety Unit include:

- Oversee inspection, installation and repairs on all boilers and pressure vessels that are subject to the Kansas Boiler Safety Act, [K.S.A. 44-913 et seq](#)
- Maintain historical and current boiler safety records
- Issue operating certificates
- Perform the first inspection on all boilers and pressure vessels

### **Kansas Boiler Act - The Law, Rules and Regulations Governing Boiler Construction, Installation, Inspection, Maintenance and Repair of Boilers**

### **Boiler Payment Portal**

The Office of the Fire Marshal is now able to accept your Boiler Invoice Payment Online via Credit Card.

[www.firemarshal.ks.gov](http://www.firemarshal.ks.gov)

# Boiler Division

- Came from Kansas Dept. of Labor in 2014
- Inspect approx. 6,000 units a year
- Work in connection with OSFM inspectors



# Partnership

OSFM Fire Inspectors  
+ Boiler Inspectors

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= Safe Buildings



# Boiler Inspections

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- A vessel heating for external uses by gas, oil, electricity or solar energy that does not exceed 160 PSI or 210° Fahrenheit
  - 200,000 BTUH or more
  - 85 Gallons or more
  - Cannot be used for Heating

# Boiler Inspections

 Boilers

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## ∞ Boilers

- A closed vessel in which water or other liquid is heated, steam vapor is generated or steam is superheated, or in which any combination of these functions is accomplished, under pressure or vacuum, for use internal or external to itself, by direct application of energy from the combustion of fuels or of electric or solar power.

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  - High and low pressure Steam
  - High and low pressure Hot water
  - Used for Heating
  - Used for Process
  - Used for Power

# Boiler Inspections

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  - Pressure vessels that use steam or heat and vacuum together for its designed purpose

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  - 6 – Pressure Vessels – 25 violations
  - 7 – Miscellaneous – 22 violations

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- Pressure relieving devices - 272
  - Set pressure, capacity
  - Discharge piping

# 133 Emergency Shut Off Switches Missing



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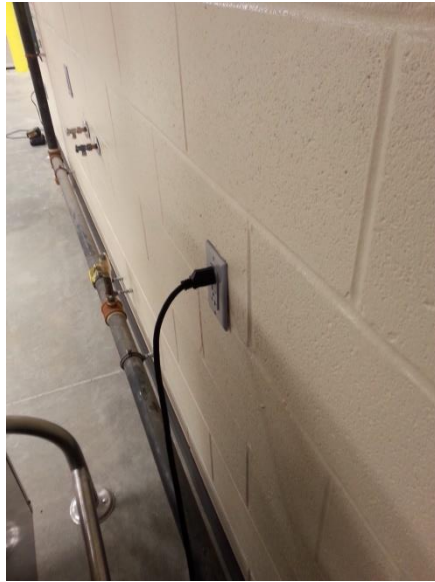
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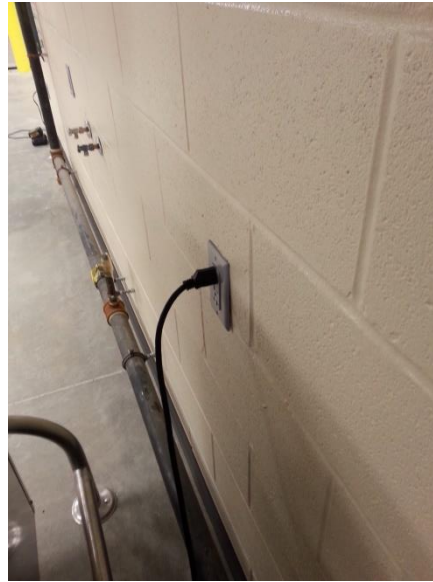
# 133 Emergency Shut Off Switches Missing



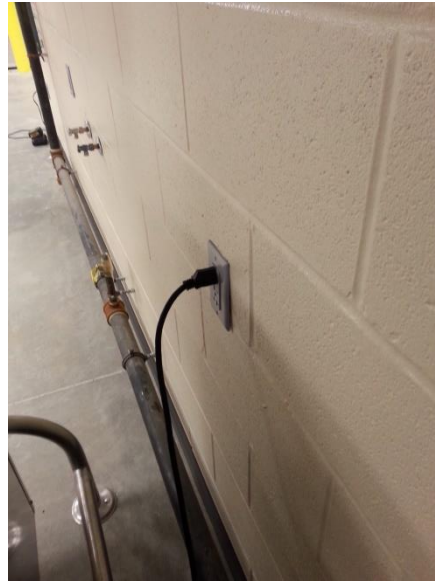
# 103 Units Not Hard Wired



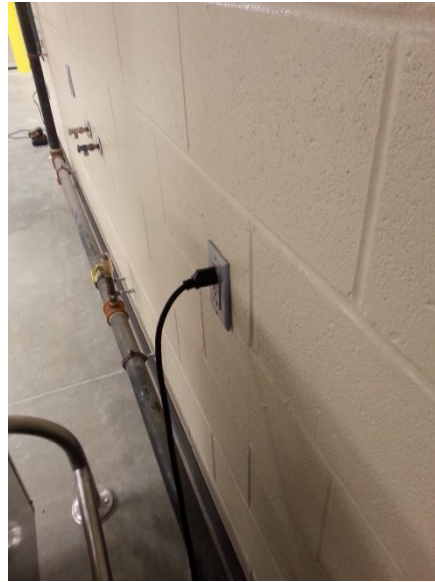
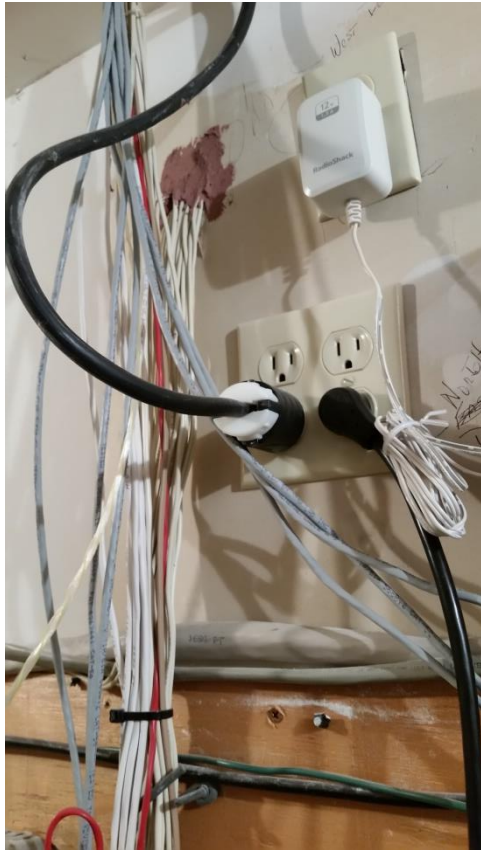
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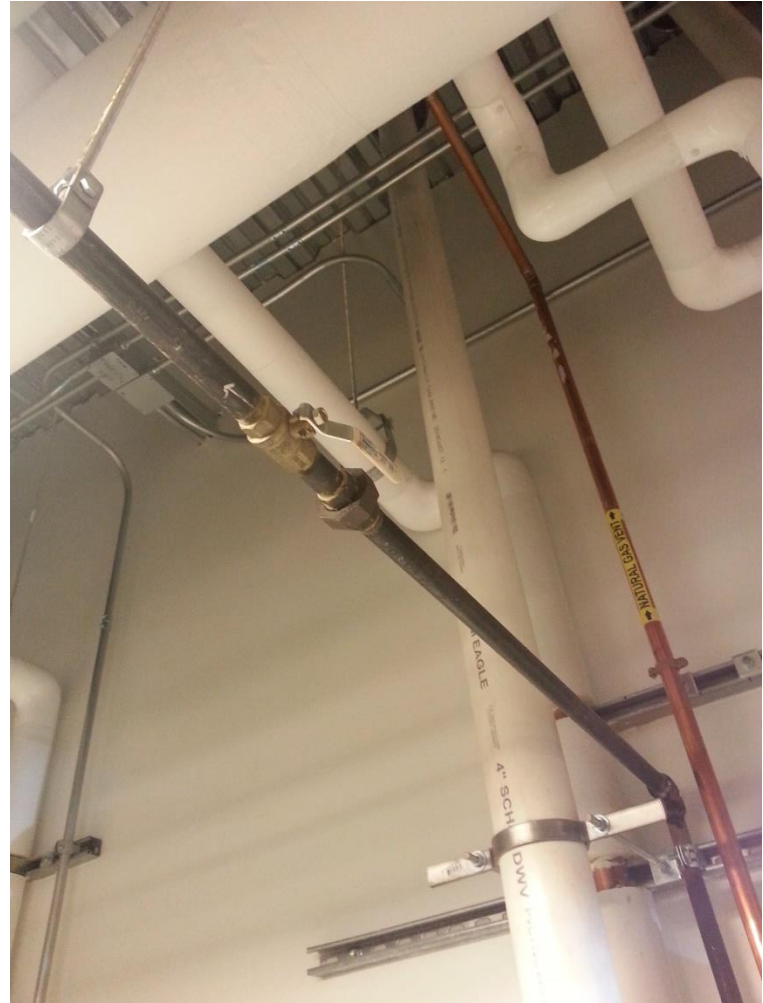
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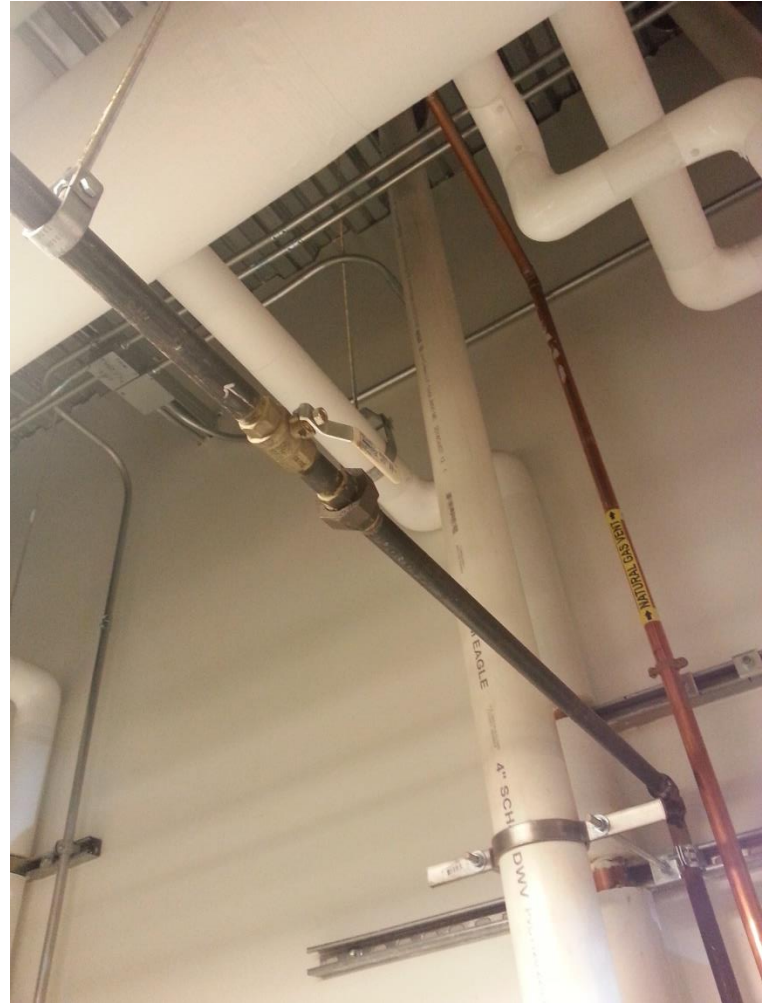
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# 183 Missing Handles on Fuel Supply's



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# 144 Gas Vent Not Properly Piped



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- ✎ Set pressure is not allowed to exceed the maximum working pressure of any object on the system
- ✎ Must be discharged to a safe point of discharge
- ✎ Discharge piping must be metallic



# Pressure Relieving Devices

## 124 Discharge piping violations



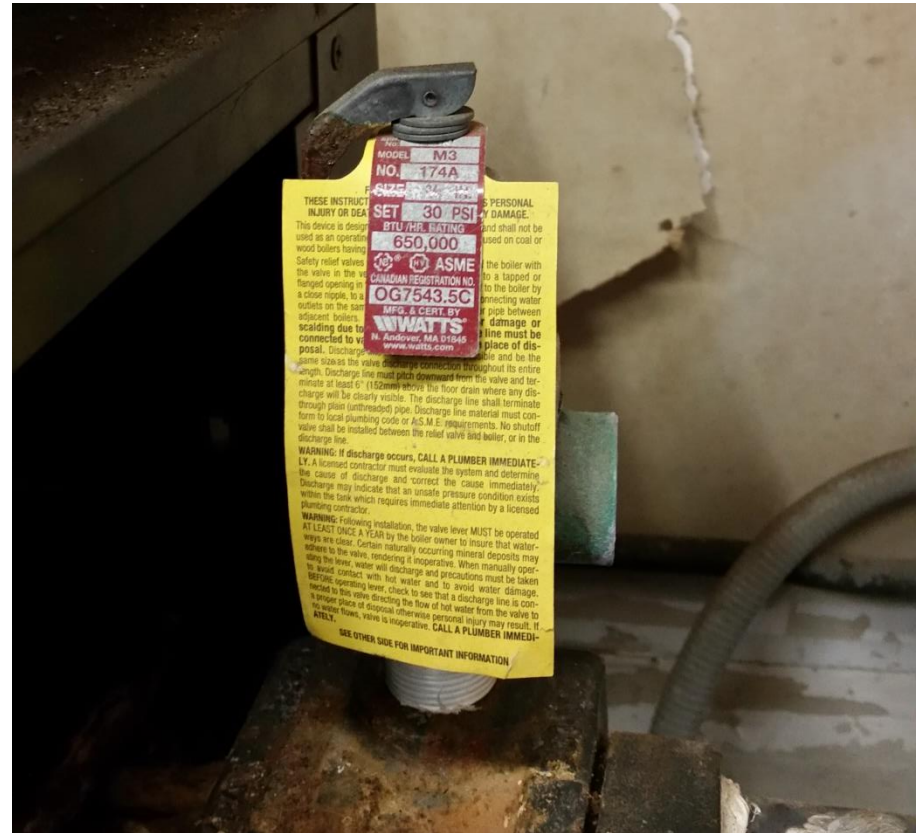
# Pressure Relieving Devices

- 124 Discharge piping violations
- Remember discharge piping needs to be metallic even on pool heaters



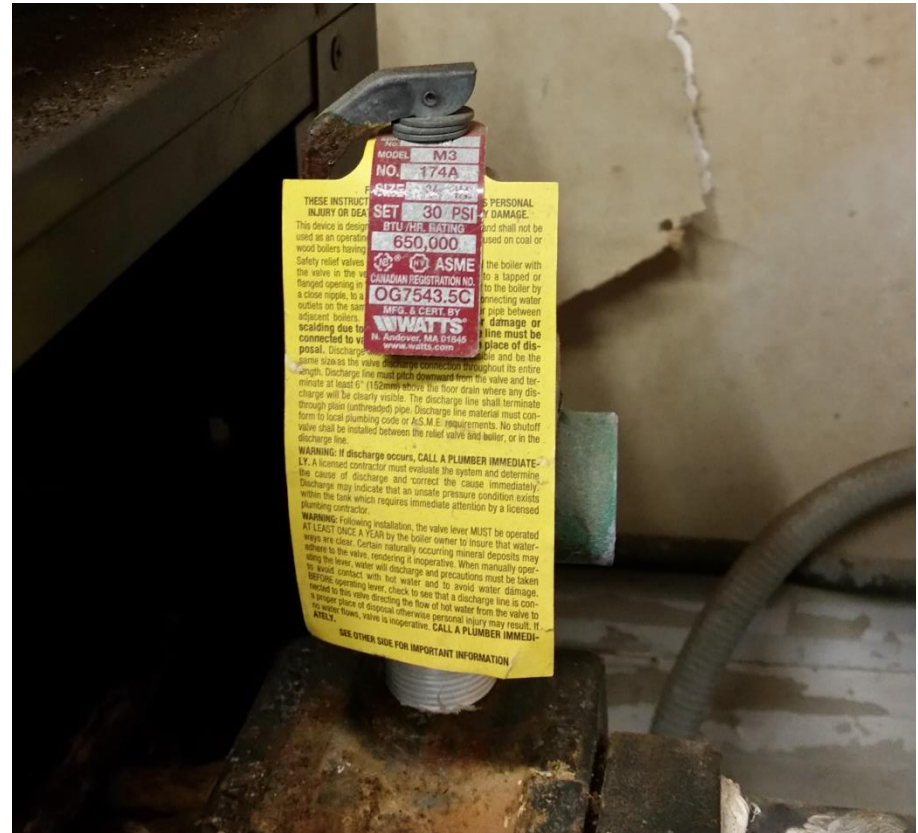
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- ❧ The pipe needs to extend to 6 inches of the ground or piped to the drain.



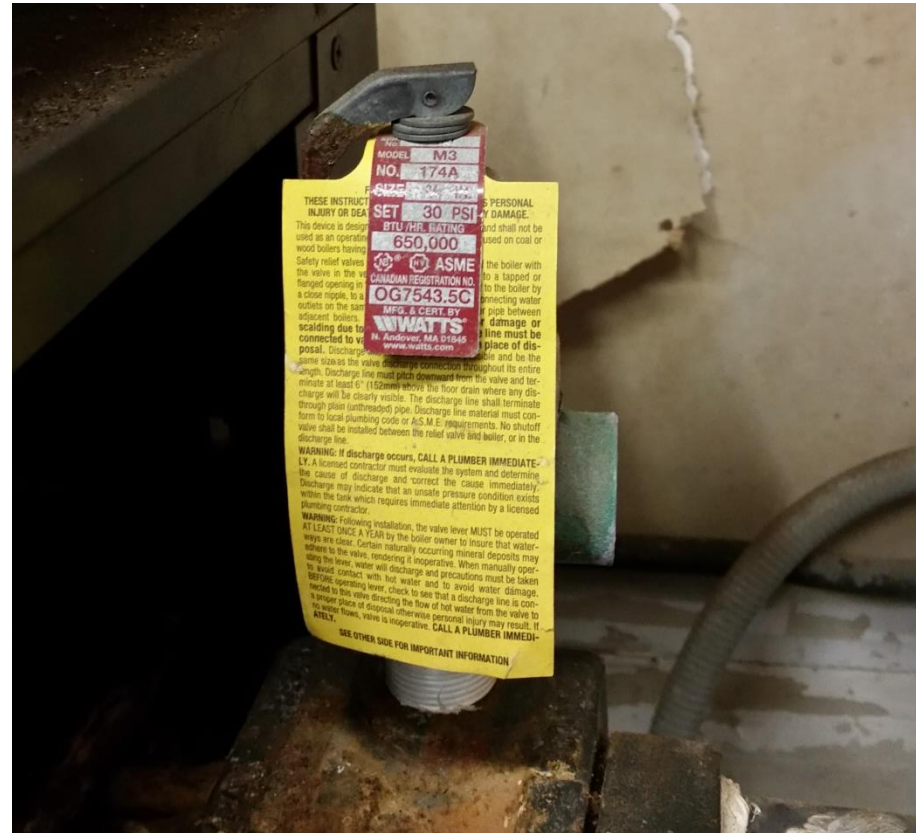
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- ⌘ Remember discharge piping needs to be metallic even on pool heaters
- ⌘ The pipe needs to extend to 6 inches of the ground or piped to the drain.
- ⌘ The piping needs to be supported
- ⌘ The end cannot have threads



# Pressure Relieving Devices

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  - Size
  - Set point
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  - The total capacity of each relief device combined shall meet or exceed the overall capacity of the input of the object



# References

- State of Kansas Boiler Safety Act
- ASME Boiler and Pressure Vessel Code
- K.S.A 44-913
- International Fire/Building Code 2006

# QUESTIONS?

800 SW Jackson, Suite 104

Topeka KS 66612

785 296 3401

[www.firemarshal.gov](http://www.firemarshal.gov)